Mirr. the Commerce Departs off 1.3 b Instead of the earated 1.79 But the month's ou-spend: f pace speeded up building's lays in all of 1971 ne sharper. gain in 21 years.

orm lead price of 14.5 cents a s set throughout the industry can Metal Climan and St. Joe followed A surce to that level. imity was said to reflect a ning marlet that is making g less important.

(Story 6: 126ge 5)

lew Hampshire plans to build illion nuclear power complex ed Illuminating Co. and other and utilities. There would be million-kilowatt generating e completed by 1981. (Story on Page 2)

mental risks of Baltimore ctric's controversial Calvert ., nuclear power plant are nent. The plant, cause of an of the commission's environlicies last year, was seen avy economic benefits.

closings have been blitzing ently, with many/employers leave the area forever. The suburban and ryral regions, rring elsawhore, is said to larly strong from that city high labor Losts resulting aulo contracts.

se time has/been practically up for the second quarter, actworks say, warning that clisers could miss out on the d. too. Ti a carly sellout at indicates a recovery from loss of ciraret ads and of 30 network programming idustry sources assert it wed busit ess confidence. (Slury on E. A Page)

ed Mill: Producers was the Justice Department plizing the sale of milk prormers in 14 states. The civil a dairy unrheting cooperathe large t in the U.S., vio-(Story on Fage 6)

on company not was listed on's two leading makers. Can sai profit was off a fourth current and 23.9% t, whit "he inental Con-. 6. Hares for the sales to goth were up in and year. (Story on 1 159 4)

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\$1.3 killion, a we proposed by the President.

In a message to Congress, Nixon called for a \$1 Lillion of sion in loans for industries and constant Tie said the expension was needed for "revitalization of the American countryside" to stem the revol-to-city population flow. The proposal would provide \$345 million for commercial and industrial purposes, and \$155 million to finance water and sewer systems, industrial parks and "related items which would enhance opportunities for employment," the White House said. Some 80% would be administered by the states, and 75% of the loans would be made by local banks and guaranteed by the government.

The \$1 billion expansion of credit wouldn't become available until mid-1973, in an attempt to tie the loan plan to Nixon's rural revenue-sharing concept.

A BOMB SHATTERED windows of the Britlsh Embassy in Dublin as protests continued.

An estimated 3,000 persons gathered in front of the embassy, and a police spokesman said "every available patrolman that can be spared" was at the scene trying to restrain the mob throwing bricks, bottles and gasoline bombs, Another bomb damaged the Wellington Monument, In Northern Ireland, a British soldier was gunned down in Belfast, Meanwhile, British Home Secretary Reginald Maulding said the army would conlinue to use "legal force" against "illegal force" in Ulster. And the British defense minister totally rejected charges that troops fired indiscriminately late crowds in Londonderry Sunday.

Ulster's Prime Minister Faulkner gave a thinly velled warning that Protestant patience may be near an chd, raising the specter of a backlash of violence.

Italy's premier-designate failed to form a government, raising demands for early partiamentary elections. Emilio Colombo reported his failure to President Giovanni Leone as labor unions went ahead with plaus for a general strike in Rome tomorrow. Observers said parliamentary elections at this time might result in new gains for neo-Faccists, and noted that the slumping Italian economy and the government's failure to restrain labor union demands were major factors in a right-wing backlash in which the neo-Fascista almost doubled their voices in local elections last June.

Integration of Chlahoma City schools next fall was ordered by a federal judge. Noting that the case begon 10 years agp, Judge Luther Echanon called it "frustratingly interminable . because of the unpardonable recalcitrance" of school officials in djarting a desegregation plan. He then imposed one. In Washington, meanwhile, Attorney General Mitchell sold he is epposed to merging suburban school districts with inner city school systems just to achieve racial balance.

A move to halt job-bias bill debate was rejected, 48-37, by the Senate. The key issue is the authority the bill would give the Equal Emplayment Opportunities Commission to Issue of job discrimination.

A note round of trade talks, pinced at the A hope round of trans takes proper at the property of the contact as many other countries as possible, will be proposed by the six Common Market forcian mhistors, sources said. The proposal is to be made

1955 1970 BUSINESS MAILURES fell to a seasonally adjusted rate of 27.5 per 10,000 in December

Be Kind to Plants-Or You Could Cause A Violet to Shrink

Inc. reports.

How One Lie-Detector Expert, In Turning Over a New Leaf. Decided Plants Have Feelings

By RICHARD MARTIN

Staff Reporter of THE WALL STREET JOURNAL NEW YORK-Have you heard about the little old grandma who swears that by whispering words of encouragement to her geraniums and African violets she helps them grow?

Cleve Backster has - many, many times. Wherever his travels take him, whether it's Haiti, Lebanon or Grundy Center, Iows, he runs into people just like her.

Mr. Backster Isn't a plant fancler; he's a polygraph expert, and he doesn't talk much to a percent plants himself. But he does study them a lot, 35 years. and his observations have convinced him that mry winwhile plants don't exactly listen to Granny's ers. The sweet talk, they do indeed get the message | ferred a probably by reading her mind.

His experiments, in fact, seem to indicate out intere that besides some sort of telepathic communiention system plants also possess something closely akin to feelings or emotions, says Mr. income. Backster. They appreciate being watered ductible; They worry when a dog comes near. They faint ference when violence threatens their own well-being. high pay And they sympathize when harm comes to ari- low out mals and insects close to them, How It All Started

Mr. Backster got hooked on plant studies Feb. 2, 1966, in the interregation reon of the interest Backster School here where he trains private investigators, police and government personnel to use polygraph machines-lie-detectors. He big for the wondered how long it would take water he had just given a fall, droopy-leafed deacem, plant mobile in to travel from the roots to the leaves, so he connected a pair of polygraph electrodes to a grant leaf, figuring that the moisture might grad Over ually change its resistance level enough to rail was ister on his lie-detector.

To his surprise, he got an immediate poly levery graph reaction pattern that closely recembed a care to that of a person under emotional stimulation, Phyli-Wondering whether the plant would also preduce a reaction similar to a human's if it. safety were threatened, Mr. Packster deced a cease-und-desist orders to enforce its findings to try burning a leaf. But before he could to will be for a metch, "at the split second that I have!" Large of Sire in my point, the re-

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can con say not was listed ation's two leading makers. Can soid profit was off the fourth quarter and 22.9% 1971, while Confinental Can 3% and 20.3% declines for the but sales of both were up in r and year. (Story or Page 4)

Gulf Sulplar raised its prices low minc al in the Southern ere competition from lowports has triggered dumping nedy Round, which ied to agreements on recipby Freeport Minerals Co. fexican producers. Sources the unusual price increase Gulf's having its own Mexiction, although it denies that ing. The U.S. industry also it by a glut of cheap sulphur

(Story on Page 5)

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proval of a far-reaching cosustry proposal for an experisulf-regulation is expected ite consumer groups' procompanies would voluntarily ad disclose secret formulas. he agency to spot hazards dangerous products off the 'ut critics say that would ctive public protection.

(Story on Page 17)

ia Gas agreed to have Apco own and operate for it a \$30 int to make synthetic gas tha that New England Petrod provide from its Bahamas ith California Standard. (Stary on Fage 4)

Steel's mill in Fontana, struck by about 6,500 pred mainte-unce workers in a er a plan for employes to roduction cost savings, the ustries unit said. (Story on Page 3)

y Preductions-Reported higher nue in the fiscal quarter ended ing even.

Volume 19,600,000 shares, Dow als 901.79, all 0.35; transportation : utilities 1:5,50, cff 0.92 " Jones 40 bonds 74.12, up 0.06. .. - Dow Jones futures index : spot inde : 1;8.10, up 0.03,

5 Ceta 13 To Citching 2 23 Foreign Approximate 24 Foreign Securities 24 Foreign Fairs 21 Securities Miss. 23-24 Tax Exercis 21 Vino's News 14 ..... 22 18

said the k opposed to merging substitum school later on his hieddector, districts with school systems just to achieve receipt once.

A move to halt job-bias bill debate was refeeted, 48-27, by the Senate. The key issue is the authority the bill would give the Equal Employment Opportunities Commission to lesue cease and desist orders to enforce its findings of job discrimination.

A new round of trade talks, aimed at the elimination of trade barriers with the U.S. and as many other countries as possible, will be proposed by the six Common Market foreign ministers, sources said. The proposal is to be made tomorrow, and will include offers to help the U.S. sell some wheat, oranges and grapsfruit stocks. One source described the new round of talks as being comparable to the Ken-

rocal reductions in tariffs.

Saigon fighter planes joined U.S. warplanes in bombing Communist supply trails in Laos, the Saigon command said. The announcement, the first official word the South Vietnamese were attacking by air into Laos, said the jets have been flying missions against the Ho Chi Minh trail since Dcc. 1. In the ground war, two U.S. soldiers were killed and four wounded in three battles cast of Saigon.

. • Daniel Schorr expressed skepticism over reports he was being considered last fall for a post with the Council on Environmental Quality. Schorr noted an FBI investigation of him, allegedly in connection with the job, was begun after his CBS reporting brought complaints from Nixon, GOP National Chairman Rep. Dole, and White House staffers. If the White House was considering him for a job under those circumstances, Schorr told a Senate committee, "it would have been an extraordinarily open-minded thing for them to have done."

Nixon and Sen. Kennedy were listed on Wisconsin's presidential primary ballot, but a Kennedy aide said the Massachusetts Democrat would ask that his name be withdrawn. They were among 16 politicians assigned spaces on the ballot. In Washington, meanwhile, Com-merce Secretary Stans said Democratic contentions that Nixon has already amassed a \$50 million warchest were "an outright lie." He said the Democrats were hoping to discourage contributions to the GOP, which presently, he said, has a \$2 million treasury,

A piecto aibum of Howard Hughes' aides was assembled by federal and Manhattan prosecutors. They will ask novelist Clifford Irving to try to lifentify one of the sides as the the new Valt Disney World in "George Gordon Holmes" he claimed served as a go-between during the writing of the alleged Hughes "autobiography." One former aide, John Meier, already has denied reports that he was the man who dealt with Irving, Meier is a candidate for New Mexico's Deniccratic senatorial nomination.

works by Cezonne and Picasso, were donated to the National College of Art by the bury College in Vermont, but he will be the W. Aver II forthman You, before The cift is in about one semantate creek, the service is the state of the semantate creek, the service is the state of the semantate creek, the service is the state of the semantate creek. memory of Marie N. Imeriman, Into wife of the | degree. former ambassador.

ductor, of a heart attack in Bethel, Conn.

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To his surpry he got an immediate polygraph reaction cra that closely resembled more that of a person under emotional stimulation. Wondering whether the plant would also produce a reaction similar to a human's if its was ame safety were threatened, Mr. Packster decided to try burning a leaf. But before he could reach But by for a match, "at the split second that I had the bonus of image of fire in my mind, the recording pen excess of bounded right off the top of the chart," he re- able and calls, "It really shook me up."

Since then. Mr. Backster estimates he has made "several thousand observations, mostly preity carcfully done, but including a few sloppy ones, tco," in his efforts to find evidence of perception capabilities in house plants, fresh fruits and vegetables, fresh eggs, mold cultures and human blood and tissue samples. Some of his observations have been as surprising as the first onc.

When the Killer Appears . . . Some samples:

-Polygraph electrodes are attached to three fresh vegetables and someone picks one and drops it into boiling water; the one se-lected seems to "faint" before it is even touched (that is, it registers on the polygraph chart a sudden upward bound followed abruptly by a straight line), but the other plants don't react (their polygraph squiggles continue uninterrupted). Eggs similarly "faint" when they are about to be picked up and broken, and they also get nervous when another egg is broken nearby.

-Six students draw iots to see who will uproot and tear to shreds one of two plants aione in a room. Later, the surviving plant shows no reaction when five of the students reenter the room, one by one, but it faints when the plant killer returns.

-An automated device rigged up in one room randomly selects and dumps cups of tiny brine shrimp into boiling water; meanwhile, plants being polygraphed in another room react at the instant the brine shrinip hit the water and dic.

-An egg, fresh from a nearby grocery store, is polygraphed and shows pulsations that closely coincide to the heartbeat of a chick embryo; but under microscopic examination, the content of the egg shows no evidence of the beginnings of a physical or circulatory structure that could account for the pulsations.

"These are startling findings," says William Bondurant, top executive of the Mary Revnolds Babcock Foundation in Winston Salem. N.C., which has just given Mr. Backster \$10,000 to help further his research.

"It's a rather unusual grant for us," adds Mr. Bondurant; mostly the foundation's funds go to support Southeastern colleges and universitics, "It's risky research, certainly, But his work indicates that there may be a primary form of instantaneous communication among all living things that transcends the physical laws we know now-and that seems to warrant looking into."

Mr. Backster started icolting into it without benefit of academic credentials. He studied Twenty-two major paintings, including civil engineering, agriculture and psychology at Texas University, Texas A&M and Middlewhom the seminary are credit for a her if it's

He got into lie detection work during and after World War II, first as a Navy ensign in fin tie. Died: Howard Barlow, 80, symphony con. the South Pacific, then as an Army master ser- the Eight Please Turn to Page 19, Column 2

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## Be Kind to Your Plants-Else V Could Cause a Violet to Shrink

Continued From Page One

geant at Fort Holpbird, Md., and later as a polygraph section head for the Central Intelligence Agency. He opened the Enckster School in 1951. It trains about 50 polygraph operators a year.

He also heads Backster Associates, a polygraph consulting and personnel screening scrvice, and Buckster Research Foundation, his nonprofit plant-studies operation, All three coneerns are located in a warren of crampod, cluttered offices and stark classrooms in a slightly secoy office building a few blocks from Times Square.

Mr. Backster lives two blocks away in a sparsely furnished two-bedroom apartment that's devoid of plants. The 47-year-old bachelor spends most of his time these days polygraphing plants and trying to interest others in his work; a three-man staff does most of the teaching and consulting work.

In the past year or so, Mr. Backster has talked to over 100 different groups, including Yale linguisties students, Dartmouth biologists, Newerk College of Engineering alumni, International Niekel Co. technicians, theology students at several universities and researchers at the Naval Weapons Center in White Oak, Md.

Turning on Scientists

"I don't like to spend a lot of time talking to groups interested in gardens or psychic plicnomena," he says, "I'm much more interested in getting scientists turned on to proving these things by replicating my work." He claims he's already in touch with scientists doing similar research using polygraphs, electrocardiograms and similar equipment at "25 or 20" universities, but he declines to name any, "You'll have to wait until they're ready to publish," he says.

Among some of those familiar with Mr. Backster's work, reactions are mixed. Professor Bernard Grad, who is doing biological studics on aging in the psychiatry department at McGill University, Montreal, says cautiously; "It's very intriguing, but I'm not an expert in polygraph work, so I don't want to overplay or underplay it."

A spokesman for Bell Telephone Laboratories' Illinois facilities, where Mr. Eackster last year spoke to a seminar of supervisors, will say only that he gave "an entertaining presentation." But a Bell Labs man who heard Mr. Backster speak to an earlier seminar of New Jersey Bell Lubs engineers and technicians says: "He was a tremendous hit and everything he said seemed absolutely credible."

"It's the sort of thing some people would dismiss out of hand," says Arthur Pinkerton, a 38-year-old physicist whose specialty is cancer radiation therapy. He met Mr. Dachster while on the staff at New York's Sloon-Rettering Conver Institute, and "I feet I arwest v." that staff parent the application has been a wifeyou look has it you calle average title to be the

that there is certainly semething going on." Laring Serious Researchers

search this way," he explains. "Fither they see the implications of my observations and bacome intensely interested or they just ignore me completely."

The pulsating egg "could have profound im-cations for origin-oi-life research," he plications for thinks. "This gots us into a force field that may regulate development of the circulatory system, some sort of genetic blueprint that hasn't been known to exist."

Mr. Backster isn't quite sure himself just what all the implications of his observations might be. "We can test fruits and vegetables until they are cooked or completely rotted away and still get reactions," he says. "This eapability seems to extend right down to the single cell level." Furthermore, he says, the signals can't be screened out by distance, lead shields or the electronic fields of interference

that interrupt conventional communications. "We're getting into another dimension, a scientific twilight area in which something can go from point to point without going between them and without consuming time to get there," he says. "But that won't be as weird as we might think; it could simply mean that some of the things that were once laughed at in theoretical physics are finally falling into place.'

"I'm also beginning to see a lot of similarities between the vehicle involved here and the new marketing m phenomena of prayer," says Mr. Backster. "As it a tough fight. a former agnostic who didn't take the trouble time wheeling an to be an atheist. I see some very high-level theological and spiritual implications of this-it opens the way for scientific exploration of the concept of the soul and seems to indicate a scicutific justification for the power of prayer." An Urhappy Experience

He also sees "fantactic implications in this for the science of erime detection." But Mr. lese. Backster says he's leaving those for others to explore, since he's already had one unhappy experience in that area

He tried a variation of the "plant killer" experiment in an actual police case more than a year ago. A girl had been murdered late at night in a factory office and scores of mainte- cheap and selling nance personnel were among the suspects, one competitor. "i Flabbergasted police officers let Mr. Backster polygraph two plants that had "witnessed" the crime as the plant workers paraded through yet. And there are the office one by one. The plants falled to react clouds. The com: and conventional police investigative proce- to \$32.7 million is dures later turned up the killer outside the 1967, a 60% increcompany.

Word of the experiment leaked out in a Na- cause of its aggire tional Wildlife Magazine story about Mr. the number enace Backster's plants recently. ("I thought we many Italy and were off the woord," he says.) When they smaller countri-heard about his story, other members of the deem't stop push-polygraph operators' fraterally threatened to demonstration by expel Mr. Backster from their national aszocia- and in countries -tion if he ever tried such a thing again. and Zemilia the c-

named Fr. nl: De signments, began bloded razor wit two days, Frank puzzled hundreds how to make the secret: a series blades to let shav through, plus a c two blades rigid.

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Meanwhile, Sc

Lambert Co., wh blade market, is o petitive with Tradays, giving dent and special offers utive at a compett away things now dreamed of a few that the revenues sales are up at le

To some of breaking into new petition in its of: company will nev turn on sales the used to huge pro to accept lower 1:

Gilletta, of cou sales and profits :

Could a coret of the U.S. about a wellthat plants possess the ability to remember, oversease the He's also doing more work with eggs, including sition it care out By sticking to observing plants and eggs trying to find out whether those from the same with little, if at and making soft-all speeding to lots of seign- lien react to each other the same way those matter Chiral " tiffe groups. Mr. Lackster figures he should the from different boas do, And, he gave. "I went on the historian